FNAL Linux Support Update

CD/CSI 2003

Definitions

- Errata
  - OS and Program Patches. Red Hat releases Errata Alerts in three categories: Security Alerts, Bug Fix Alerts, and Enhancement Alerts.
- RPM
  - Software packages used for Linux distributions. Software is already compiled.
- SRPM
  - Source files for an RPM. Requires compilation before distribution.
- Workgroups
  - Allows grouping of RPMs Fermi experiments, Divisions and Sections.

Fermi Linux Today

- Download free Red Hat supplied RPMs
- Build specialized FNAL RPMs (security,etc..)
- 2 stage release:
    - Fermi Linux Release
    - FUE Certified Fermi Linux Release
- Workgroups
- Fermi Linux lifetime = Red Hat Linux lifetime
- Fermi Linux errata support = Red Hat errata support

Red Hat Support Changes

- Red Hat free product
  - Red Hat transitioning free product to community project - Fedora Project
  - Errata support? (3/5 years before)
  - 2-3 times per year release cycle
- Red Hat Enterprise Linux (RHEL) product
  - Long term support (3/5 years)
  - 18 month release cycle
  - Licensed yearly (not free)

Current Red Hat Life Cycles

Red Hat Linux 9	April 30, 2004
Red Hat Linux 7.3	December 31, 2003
Red Hat Linux 7.1	December 31, 2003

FNAL Support Requirements

- Long term errata support solutions needed for experiments and farms
  - \> 12 months
  - Experiments requesting long term security errata support, will find their own support solutions if needed
- Staying current with new hardware for desktops and laptops
  - Red Hat Enterprise only provides new release every 18 months
  - Fedora Project provides new release 2-3 times per year
- Long term and short term support must cover offsite users!

Red Hat Enterprise

- Enterprise Linux AS/ES/WS
  - Based on 7.2 code
  - Yearly support costs
  - 3 year full errata support, 5 years errata security
  - New release every 18 months
    - Version 3, Oct 2003
  - Free SRPMs available (for now)
  - Less desktop programs available than with 9.0

Red Hat Enterprise

- Red Hat Enterprise Linux AS
  - $1499 SE, $2499 PE
  - Designed for large departmental and database servers (ie Oracle, 8-way servers).
  - > 2 CPUs
  - Standard Edition (SE): 1 year, Mon-Fri, 9-9 with 4-hour response, unlimited incidents & Red Hat Enterprise Network, CDs and printed documentation.
  - Premium Edition (PE) : 1 year, 24x7 with 1-hour response, unlimited incidents & Red Hat Enterprise Network, CDs and printed documentation.

Red Hat Enterprise

- Red Hat Enterprise Linux ES
  - $349 BE, $799 SE
  - Medium size systems
  - 2 cpus
  - Basic Edition: 90 days, Mon-Fri, 9-5 with 4-hour response phone, 1 year subscription to Red Hat Enterprise Network, downloadable only
  - Standard Edition: 1 year, Mon-Fri, 9-9 with 4-hour response, unlimited incidents & Red Hat Enterprise Network, CDs and printed documentation.

Red Hat Enterprise

- Red Hat Enterprise Linux WS
  - $179 BE, $299 SE
  - Desktop
  - 2 cpus
  - Basic Edition: 90 days, Mon-Fri, 9-5 with 4-hour response phone, 1 year subscription to Red Hat Enterprise Network, downloadable only
  - Standard Edition: 1 year, Mon-Fri, 9-9 with 4-hour response, unlimited incidents & Red Hat Enterprise Network, CDs and printed documentation.

Fedora Project

- Free
- Red-Hat-sponsored and community-supported open source project
- New releases ~ every 6 months
    - Designed for latest programs and hardware
- Errata support 2-3 months after next release

Current Support Choices

- Long term support choices for existing OS (7.3.1 and 9.0)
  - Pay 3rd party vendor for support
    - Pricing promised from Sun and HP
  - Participate in community support
    - Like linux-users but global!
    - Requires active participation
      - May require code development
  - Limit support to security errata

7.3.1 Support Communities

- HEP
  - CERN errata support proposal for HEP community
  - Very little structure- discussion just starting, more at fall Hepix (we could take lead)
- Univ-Linux
  - Provide errata support across universities (open to anyone)
  - Some structure
- Fedora Legacy Support
  - Part of the Fedora Project
  - Very structured
- cAos
  - Provide stable open source environment
  - Very structured

Future Support Choices

- Fermi Linux build using:
  - Red Hat Enterprise
  - Enterprise SRPMs
  - Review other Linux builds

Future Support Choices

- Build with Red Hat Enterprise
  - Yearly support/license costs
  - 3 year errata, 5 year security support
  - License management issues (how to track?)
  - Required for Oracle servers, > 4 CPU systems
  - slccc trying to negotiate a cheaper price on WS
    - ~$100 instead of $179
  - Will Fermi RPMs void support agreement?
  - Will offsite users be covered?

Future Support Choices

- Build with Red Hat Public Source
  - Fedora Project
    - Cutting edge RPMs
    - Not a supported product of Red Hat, Inc.
  - Red Hat Enterprise SRPMs
    - 3 year errata support without license cost/management issues
    - Overhead not much more than what we do now
    - Red Hat has made no commitment to continue releasing source RPMs

Future Support Choices

- Other Linux:
  - Mandrake
  - SUSE
  - Debian
  - Many more…
- Working Group for future support
  - Review needs of Fermi linux environment
  - Recommend long term support (2 years from now)

Recommendations

- Provide security errata for 7.3 until Dec 31, 2004
  - Participate in community errata project(s)
- New versions of Fermi Linux
  - Desktop, laptop support based on Fedora Project (short term errata support)
  - Farm nodes, experiment systems based on Red Hat Enterprise SRPMs (long term errata support)
  - Purchase Enterprise support where required

Useful Links

- **Red Hat Enterprise info sheet**

http://www.redhat.com/pdf/rhel/ASESWS_Infosheet.pdf

- **Fedora Project**

http://fedora.redhat.com/

- **Univ-Linux**

http://linux.duke.edu/projects/univ-linux/

- **cAos**

http://http://www.caosity.org/